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CREATIVE DESIGN THINKING:

ENHANCING EFFICIENCY AND SUSTAINABILITY IN PLASTICS MANUFACTURING

Prepared & Conducted by
Rajeev Sharma
Trainer, Polymerupdate Academy

Summary

- This Masterclass Workshop aims to equip participants with the knowledge and skills necessary to Design new products.

- From understanding the fundamentals to mastering the customer centric professional Design Process and best practices.

- The interaction is designed to provide the participants with a comprehensive knowledge of Design Thinking Methodology evolved over the years at world-wide centers of Design and practices by Design Gurus.
  It will be divided into three modules, each covering essential topics in the field.

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SCHEDULE

September 27th, 2024

TIMING : 09:00 – 18:00 (IST)

📍 VENUE:

Royal Orchid Central, Vadodara (RE:GEN:TA Hotels)

Akota, Mujmahuda, Vadodara, Gujarat – 390020

FOR ADDITIONAL INFORMATION, PLEASE CONTACT:

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Ms. Nikita Oroskar **+91 8591 545 638**

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Module 1

- This module will introduce participants to the basics of design thinking, including its origin, key principles, and significance in today's rapidly evolving business environment.

- Participants will explore the human-centered approach of design thinking and understand its value in fostering innovation and solving complex problems.

Module 2

- This module will provide a detailed explanation of the entire design thinking process, guiding participants through each of the five critical stages: Empathize, Define, Ideate, Prototype, and Test.

- Participants will learn how to conduct user research, define core problems, generate innovative ideas, create prototypes, and test solutions in real-world scenarios.

- The module will emphasize the iterative nature of design thinking, where continuous feedback and refinement are key to developing successful solutions.

- Practical examples and case studies from various industries will illustrate how each stage contributes to the overall success of a project.

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Module 3

- This module will focus on the practical application of design thinking through the exploration and discussion of various real-life case studies.

- Participants will delve into examples from different industries, learning how organizations have successfully used design thinking to innovate, solve complex challenges, and enhance user experiences.

- The case studies will illustrate how the stages of design thinking— Empathize, Define, Ideate, Prototype, and Test—are applied in real-world scenarios.

- By analyzing these cases, participants will gain valuable insights into the impact of design thinking and acquire strategies to apply these concepts in their own work environments.

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90 minutes

Session 1: Introduction to Design Thinking

Lecture I: Understanding and Applying Design Thinking

1. Overview of the concept and history of design thinking
2. Key principles and the human-centered approach
3. The five stages of design thinking: Empathize, Define, Ideate, Prototype, Test
4. Practical examples of how design thinking is applied in various industries
5. The value of design thinking in fostering innovation and solving problems

180 minutes

Session 2: The Design Thinking Process

Lecture II: Exploring the Design Thinking Stages

1. Detailed explanation of the five stages: Empathize, Define, Ideate, Prototype, and Test
2. The double diamond design thinking approach
3. Practical examples of each stage
4. The iterative nature of the design thinking process
5. Importance of user feedback and continuous improvement

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90 minutes

Session 3: Case Studies of Design Thinking

Lecture III: Real-Life Case Studies of Design Thinking

1. Exploration of various real-life case studies from different industries.
2. Discussion on how organizations have implemented design thinking to drive innovation.
3. Examination of the design thinking stages in action: Empathize, Define, Ideate, Prototype, Test.
4. Analysis of the impact of design thinking on problem-solving and user experience.
5. Key takeaways and lessons learned from the case studies to apply in participants' own fields.

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Who should attend?

- Professionals working in the various functions as mentioned below for sectors such as chemical, plastic and polymer, manufacturing, automotive, aerospace, electrical and electronics, home appliances, medical device sector etc.

- DFX and collaborative design involves every downstream activity professional (Listed below) to be engaged from scratch. DFMEA mandates inputs from all and this necessitates all professionals upto the end of life of product to have understanding of design Process.

- Researchers & Development Professionals in the Polymer Industry Plastic Product Designer Professionals

- Quality Control Professionals

- Production Managers & Engineer

- Polymer/Mechanical Engineers

- Sales & Marketing Professionals

- Graduate Students & Researchers

What will you learn?

- Learn to make innovative user centric design with non redundant functional features ensuring high success rate of acceptance. The iterative approach allows to refine ideas and solutions based on user feedback, leading to better products.

- Gain insights into the Design Thinking approach for designing plastic parts, including thermoplastics, thermosets, 3D-printed components, and composites.

- You will learn about Plastic Product Design Features, the Design of Structural Elements, Composite Product Design, and Product Design Criteria, among other essential topics

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Rajeev Sharma
Trainer
Polymerupdate Academy

Rajeev Sharma is a professional with over 30 years of experience in TransFunctional Design, Development, Manufacturing, and Tooling of new products. He has worked with major companies such as TATA Motors, Hero MotoCorp, EXIDE, and Philips, focusing on areas like disruptive design, innovation, and technology adoption.

Specializing in Design Thinking, Mr Sharma has experience in translating customer needs into technical specifications and integrating them into new products. Their expertise extends to advanced prototyping methods, including additive manufacturing (3D printing) and data analytics-driven design optimization.

Their academic background includes M Tech in Tool Design & Manufacturing (Indo Danish Tool Room Delhi), M Des in Industrial Design with specialization in polymer composites from IIT Kanpur and B tech in Mechanical Engg. Additionally, they are serving as a Professor of Practice at DTU, Delhi, Member working Group on AM, MEITY, GOI and have contributed to projects involving Li-ion batteries, EV Vehicle Design, and Light Weighting Automobiles.

Throughout their career, Mr Sharma has successfully led teams in the design and development of various products, across the manufacturing sector be it, Consumer Electronic, Personal Mobility, Passenger Vehicles or Heavy commercial vehicles.

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DISCLAIMER

Introduction

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Training materials provided by Polymerupdate Academy are for attendee use only during the training for note-taking and reference and do not include the full presentation content.

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Amendments

The organization reserves the right to modify this disclaimer at any time by publishing a new version on our website. Your continued participation in the program after such changes will constitute your consent to such changes.

No Photography or Recording

Attendees are not permitted to take photographs, videos, or audio recordings of any part of the training materials, the training environment, or the participants without prior written consent from the organizers. This includes, but is not limited to, presentations, workshops, discussions, and any training-related materials.

Special Circumstances

If there is a specific need or requirement for photography or recording for educational or promotional purposes, participants must obtain explicit permission from the training organizers. Such requests should be made in advance of the training session, and permission will be granted at the discretion of the organizers.

Compliance: Failure to comply with this policy may result in removal from the training session and possible exclusion from future events.

Contact Information

If you have any questions about this disclaimer, please contact us at Polymerupdate Academy on +91 93219 75884

Refund Policy: Course fees will not be refunded in case a registered participant is unable to attend the session.

In the event that training programme offered by Polymerupdate Academy needs to be rescheduled due to unforeseen circumstances, the course fees paid by the participants will be adjusted and applied to the next available course of the same type. Participants will be notified of the rescheduled dates as soon as possible, and all efforts will be made to ensure that the new course dates are convenient for the majority of participants. This adjustment policy ensures that participants receive the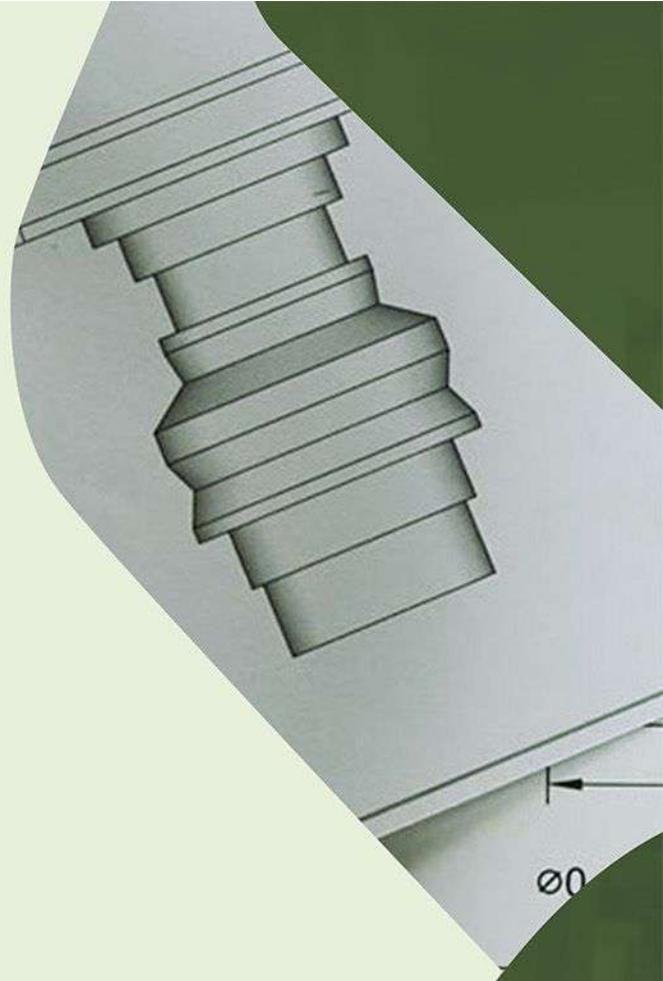 full value of their course fees despite any disruptions. Replacement Policy: However, participants have the option to send a replacement attendee by informing the organizers in advance by email.

Individual photographs or testimonial videos are not automatically provided; requests for such materials must be emailed to the organizing committee and are subject to approval.

Acknowledgment

By participating in the Training Program, you acknowledge that you have read this disclaimer, understand it, and agree to be bound by its terms and conditions.

We thank you for your understanding and cooperation in ensuring that our training program remains a productive and respectful environment for all involved.

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